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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------|-------------|----------------------|------------------------|------------------|
| 10/614,759 | 07/08/2003 | Joseph W. Schaffer | SCHA3004/FJD | 6109 |
| 23364 | 7590 | 04/18/2005 | | |
| BACON & THOMAS, PLLC | | | EXAMINER | |
| 625 SLATERS LANE | | | THOMPSON, JEWEL VERGIE | |
| FOURTH FLOOR | | | | |
| ALEXANDRIA, VA 22314 | | | ART UNIT | PAPER NUMBER |
| | | | 2855 | |

DATE MAILED: 04/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-------------------|-----------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/614,759 | SCHAFFER ET AL. |
| | Examiner | Art Unit |
| | Jewel V. Thompson | 2855 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 10 September 2004.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-8 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-4, 6 and 8 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Vander Heyden (4,663,977).

Regarding claims 1 and 6, Vander Heyden teaches a flow meter, comprising: a primary flow sensor (1,2); sensor electronics (fig. 1) connected to the primary flow sensor for proving a measurement signal; a signal processing unit (16) connected to the sensor electronics for determining the flow, the signal processing unit (16) being set to produce a signal proportional to the flow rate or the square of the flow rate (col. 13, lines 55-58); and an output signal generator (12) for generating an output signal proportional to the signal of the signal processing unit (col. 9, lines 23-24).

Regarding claim 3, Heyden teaches the primary flow sensor includes two ultrasonic transducers (1 and 2) serving as transmitters and receivers (col. 6, lines 35-38).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vander Heyden in view of Fletcher-Haynes (5,831,175).

Regarding claims 2 and 8, Vander Heyden fails to teach a communication interface, allowing a user to set the output signal to be proportional to the flow rate or the square of the flow rate. Fletcher-Haynes teaches a flow meter equipped with a suitable data input device, a keyboard (16). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to have used the keyboard of Fletcher-Haynes in the flow meter of Vander Heyden for the purpose of being supplied with user selectable constants and mode control commands (col. 8, lines 52-55, Fletcher-Haynes)

Regarding claim 4, Vander Heyden fails to explicitly teach the output signal generator comprises part of the signal-processing unit. However the signal processor (16) is part of the entire system. It would have been obvious to one of ordinary skill in that art at the time that the invention was made to have known that the generator of

Vander Heyden is a part of the signal processor for the purpose of determining the sonic velocity from the signals generated from the generator (abstract, Vander Heyden)

Response to Arguments

3. Applicant's arguments filed January 13, 2005 have been fully considered but they are not persuasive.

The finality of the Office Action dated September 10, 2004 has been withdrawn. A non-final Office Action including the claims 6-8 that were inadvertently missed in the previous Office Action.

Applicant argues the cited reference does not teach that the signal is proportional to the square of the flow rate.

Examiner disagrees. However, what is actually claimed is "...a signal proportional to the flow rate or the square of the flow rate;" The cited reference teaches "...a signal proportional to the flow rate;"

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jewel V Thompson whose telephone number is 571-272-2189. The examiner can normally be reached on 7-4:30, off alternate Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jvt
April 11, 2005